

Amendment to the Abstract:

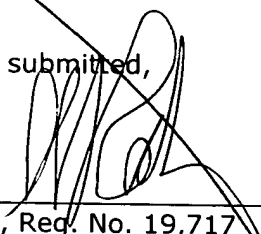
The Abstract has been amended. A revised Abstract is attached.

~~To provide a voltage-controlled oscillator capable of curbing degradation of a phase noise characteristic and keeping compliance of a control voltage unreduced, and a radio communication apparatus and a voltage-controlled oscillation method using the voltage-controlled oscillator.~~

The A voltage-controlled oscillator having an inductor circuit, n pieces (n is two or more) of variable capacitance circuit having variable capacitance elements, negative resistance circuits, and reference voltage generation means of generating a reference voltage from a power supply voltage, and wherein a predetermined reference voltage is inputted to some terminals of the variable capacitance elements of the n pieces of variable capacitance circuit, a control voltage is inputted to the other terminals thereof, and of the variable capacitance elements of the n pieces of variable capacitance circuits, the predetermined reference voltage inputted to some terminals of the variable capacitance elements of at least two pieces of the variable capacitance circuit is different.

Attachment

Respectfully submitted,


Allan Ratner, Reg. No. 19,717
Attorney for Applicants

AR/dlm
Attachment: Abstract

P.O. Box 980
Valley Forge, PA 19482
(610) 407-0700

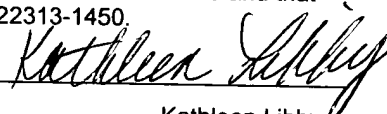
The Commissioner for Patents is hereby
authorized to charge payment to Deposit
Account No. 18-0350 of any fees associated
with this communication.

EXPRESS MAIL

Mailing Label Number:
Date of Deposit:

EV 325926535 US
October 1, 2003

I hereby certify that this paper and fee are being deposited, under 37 C.F.R. § 1.10 and with sufficient postage, using the "Express Mail Post Office to Addressee" service of the United States Postal Service on the date indicated above and that the deposit is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Kathleen Libby

DLM_I:\MTS\3475US\PRELIM_AMEND.DOC

ABSTRACT

A voltage-controlled oscillator having an inductor circuit, n pieces (n is two or more) of variable capacitance circuit having variable capacitance elements, negative resistance circuits, and reference voltage generation means of generating a reference voltage from a power supply voltage, and wherein a predetermined reference voltage is inputted to some terminals of the variable capacitance elements of the n pieces of variable capacitance circuit, a control voltage is inputted to the other terminals thereof, and of the variable capacitance elements of the n pieces of variable capacitance circuits, the predetermined reference voltage inputted to some terminals of the variable capacitance elements of at least two pieces of the variable capacitance circuit is different.